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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,853	04/25/2002	Jacek Kowalski	P01,0401	1853
26574	7590	11/01/2006	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			ROBINSON, MYLES D	
			ART UNIT	PAPER NUMBER
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DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/019,853	KOWALSKI ET AL.
	Examiner Myles D. Robinson	Art Unit 2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 July 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14 - 26 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 14 - 26 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 April 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/7/2001, 7/23/2002</u>	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Response to Amendment***

1. Applicant's amendment was received on 7/17/2006, and has been entered and made of record. Currently, **claims 14 – 26** are pending.

### ***Response to Arguments***

2. Applicant's arguments filed 7/17/2006 with respect to the rejections of **claims 14, 21, 24 and 26** under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of **Zuckerman** (U.S. Patent No. 2,631,845).

Regarding **claims 14, 21, 24 and 26**, the Applicant argues that **Rourke et al.** (U.S. Patent No. 5,398,289) does not disclose, teach or suggest the print data being provided on a web shaped carrier (see *Remarks [page 11, lines 3 – 7]*).

However, Zuckerman does disclose the print data being provided on a web shaped carrier (see *Fig. 1, web W supplied to printing mechanism*).

Therefore, the Applicant's arguments regarding claims 14, 21, 24 and 26 are considered not persuasive. Please cite rationale of the grounds of rejection below for further explanation.

Furthermore, regarding **claims 14, 21, 24 and 26**, the Applicant argues that Rourke does not disclose, teach or suggest using the same parameter defining the

recording medium to implement a position correction of the print image on the pages before printing (see *Remarks [page 10, lines 2 – 22]*).

However, Rourke does disclose using the same parameter defining the recording medium to implement a position correction of the print image on the pages before printing (see *Fig. 19, shift increment x and extra shift increment x' [column 10, lines 13 – 55] wherein the shift increment x is automatically based upon the previously calculated number SI [column 10, lines 13 – 19] wherein number of signatures SI is calculated from the number of pages in the set N, number of pages per signature P and the type and thickness of sheets [column 7, lines 8 – 28]*).

Therefore, the Applicant's arguments regarding claims 14, 21, 24 and 26 are considered not persuasive. Please cite rationale of the grounds of rejection below for further explanation.

#### ***Information Disclosure Statement***

3. The examiner has considered the references listed in the Information Disclosure Statements (IDS) submitted on 11/7/2001 and 4/23/2002 (see attached PTO-1449).

#### ***Drawings***

4. The drawings were received on 7/17/2006. These drawings are acceptable.

#### ***Specification***

5. The amendments to the specification were received on 7/17/2006. These amendments are acceptable.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 14 – 26** are ejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 14, 21, 24 and 26** are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The method steps of cutting of the web shaped recording carrier into single sheets and folding signatures are critical or essential to the practice of the invention, but not included in the claims. The Applicant emphasizes these steps as essential to the invention (see *Remarks [page 11, lines 3 – 7]*, especially since the print data produced on a web shaped carrier must somehow be cut and separated in order to produce the desired signatures, and these elements are disclosed within the Specification and Drawings (see *Fig. 1, post-processing device 7 [page 12, line 20 – page 13, line 1]*); however, these essential steps are not claimed. All claims dependent upon this claim suffer the same deficiency and, therefore, are rejected as well.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
9. ***Claims 14 – 16 and 19 – 26*** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rourke et al.** (U.S. Patent No. 5,398,289) in view of **Stahl GmbH** “**Folding Techniques**” and in view of **Yamada** (U.S. Patent No. 4,672,462) and further in view of **Zuckerman** (U.S. Patent No. 2,631,845).

Referring to **claim 21**, Rourke discloses a printing system, comprising:

at least one computer (see *Figs. 2, 5A – 5C, controller 7 comprising system controller 54*); and

a printer device connected to said at least one computer (see *Fig. 2, printer section 8 connected to controller 7*) for implementing steps of:

editing the print data for printing on at least one sheet in a logical page sequence corresponding to at least one signature, said at least one signature forming a section of a printed product (see *Fig. 8A, signature 170 and Fig. 9, segment 174 and book 175*) and including a plurality of pages (see *Fig. 19 [column 6, line 52 – column 7, line 7]*),

defining at least one parameter of a recording medium on which the print data are printed and that is relevant for a position of a print image on the recording medium folded in signatures (*column 7, lines 8 – 28 wherein number of signatures S1 is calculated from the number of pages in the set N, number of pages per signature P and the type and thickness of sheets*),

implementing a position correction (see *Fig. 19, shift increment x and extra shift increment x' [column 10, lines 13 – 55]*) of the respective print image on the pages before printing dependent on said at least one parameter (*column 7, lines 8 – 28 and column 10, lines 13 – 19 wherein the shift increment x is automatically based upon the previously calculated number SI*), and

computationally simulating folds of said at least one sheet needed for producing said at least one signature (see *Fig. 15 wherein print preview displaying signature foldline of print media [column 9, lines 6 – 8]*) with assistance of a computer program (*column 5, lines 45 – 48, column 6, lines 33 – 44 and column 11, line 6 – column 12, line 2 wherein computer program implements signature jobs*) so that the print images of successive pages of the folded signature lie exactly registered above one another (see *Figs. 9 and 13 wherein pages with printed images are folded to lie one on top of the other [column 6, line 52 – column 7, line 7, and column 8, lines 23 – 46]*) but does not explicitly disclose the system further wherein the folds ensue in two directions perpendicular to one another, said position correction ensues in the two directions perpendicular to one another, and the print data being provided on a web shaped carrier.

Stahl GmbH discloses the system wherein the folds ensue in two directions perpendicular to one another (*pages 32 – 48 wherein folds in two directions perpendicular to one another*) but does not explicitly disclose the system further wherein said position correction ensues in the two directions perpendicular to one another and the print data being provided on a web shaped carrier.

Yamada discloses the system wherein said position correction ensues in the two directions perpendicular to one another (see *Fig. 2 wherein margins and gutters b, c and d correct image position perpendicular to margin and gutter a [column 4, lines 12 – 15]*) but does not explicitly disclose the system further wherein the print data being provided on a web shaped carrier.

Zuckerman discloses the system wherein the print data being provided on a web shaped carrier (see *Fig. 1, web W supplied to printing mechanism [column 2, lines 23 – 28]*).

Rourke, Stahl GmbH, Yamada and Zuckerman are combinable because they are both from the same field of endeavor, being signature printing of plural images. At the time of the invention, it would have been obvious to one of ordinary skill in the art to include both folding a sheet of paper and correcting the position of image data in two directions perpendicular to one another along with a method in editing and producing a signature product. The suggestion/motivation for doing so would have been to increase efficiency and to provide better results with proper folding techniques, as suggested by Stahl GmbH (*page 22, lines 1 – 6*).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of invention to include correcting the position of image data in two directions perpendicular to one another along with a method in editing and producing a signature product. The suggestion/motivation for doing so would have been to compensate the difference in gutter width between pages which are to be inner pages and in which are

to be outer pages for the varying numbers of pages in binding magazines or catalogues, as suggested by Yamada (*column 2, lines 5 – 23*).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of invention to include printing on a continuous web. The suggestion/motivation for doing so would have been to provide a faster and more economical method to manufacture books, as suggested by Zuckerman (*column 1, lines 1 – 40*).

Referring to **claim 22**, Rourke discloses the system further comprising at least one post-processing device (see *Fig. 3, finisher 120*) that at least one of cuts and folds and binds a recording medium printed by said printer device to form a printed product (*column 5, lines 8 – 10 and column 6, lines 59 – 63*).

Referring to **claim 23**, Rourke discloses the system further wherein binding ensues in binding (*column 5, lines 8 – 10 and column 6, lines 59 – 63*).

Referring to **claims 14 and 20**, respectively, the rationale provided in the rejection of claims 21 and 22, respectively, are incorporated herein. In addition, the systems of claims 21 and 22, respectively, perform the methods of claims 14 and 20, respectively.

Referring to **claims 24 and 26**, the rationale provided in rejection of claim 14 is incorporated herein. The method of claim 14 is stored as a program of instructions of claims 24 and 25 within memory (see *Rourke [Fig. 2, main memory 56]*) and executed by a series of processors (see *Rourke [Figs. 2, 5A – 5C, controller 7 comprising system controller 54] and see Yamada [Fig. 3, CPU 1]*).

Referring to **claim 25**, Rourke discloses the product further comprising: at least one of a data carrier (see *Figs. 2, 5A – 5C, controller 7 communicates data via memory buses 72 and 74*) and a datafile and a computer program module and a command sequence and a signal sequence (*column 6, lines 1 – 5*).

Referring to **claim 15**, Rourke discloses the method further wherein said step of computationally simulating simulates the folds of the signature for said position correction, and further comprising the step of:

calculating correction values for the print image of a page from an influence of each fold on a print image of at least one page (see *Fig. 19 wherein shift increment x and extra shift increment x' is applied to all pages 1 – 16 [column 10, lines 13 – 55]*).

Referring to **claim 16**, Rourke discloses the method further wherein said simulating step simulates the folds page-by-page with ascending or descending page number, and further comprising the step of:

forming pairs of successive page numbers that due to the signatures at least one of come to lie on one another as a result of a fold and between which a fold is provided due to the signature (*column 6, line 64 – column 7, line 7 and column 8, lines 23 – 46*).

Referring to **claim 19**, Rourke discloses the method further wherein said parameter is a thickness of the recording medium (*column 7, lines 26 – 28*).

10. **Claims 17 – 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rourke et al.** (U.S. Patent No. 5,398,289) in view of **Stahl GmbH “Folding Techniques”** in view of **Yamada** (U.S. Patent No. 4,672,462) in view of **Zuckerman**

(U.S. Patent No. 2,631,845) in view of **Iwasaki** (U.S. Pre-Grant Publication No. 2001/0039554 A1) and further in view of **Ahrens** (U.S. Pre-Grant Publication No. 2002/0018239 A1).

Referring to **claim 17**, Rourke, Stahl GmbH, Yamada and Zuckerman disclose the method as discussed above but does not explicitly disclose the method further comprising the steps of carrying out a successive check out to see whether a physical fold of the sheet is possible as a result whereof the pages of a page pair of successive pages are arranged in reading sequence after the sheet is folded to form the signature, and implementing a data-oriented fold when a fold is possible and entering the page pair in a list when a physical fold cannot be implemented.

**Iwasaki** discloses carrying out a successive check out to see whether a physical fold of the sheet is possible as a result whereof the pages of a page pair of successive pages are arranged in reading sequence after the sheet is folded to form the signature (see *Figs. 3, 17 – 20 and 22 [paragraphs 0065, 0068]*), and

implementing a data-oriented fold when a fold is possible (see *Figs. 3, 17 – 20 and 22 wherein a fold is implemented if possible, and 0072 wherein a fold is determined impossible [paragraphs 0065, 0068]*) but does not explicitly disclose entering the page pair in a list when a physical fold cannot be implemented.

**Ahrens** discloses a method implementing a data-oriented format of presentation data when the operation of formatting the presentation data is possible and entering the data in a list (*see Fig. 2, list 237 and Fig. 4, step 440*) when an operation of the format of presentation data cannot be implemented (*see Fig. 4, steps 420 – 455*). The

rasterization of text data overlapping non-transparent graphic objects relates to the format of presentation data, and the method of successively determining the presence of text data overlapping any non-transparent graphic objects within a document for printing as disclosed relates to the control of such format of presentation data. Furthermore, the data-oriented folding of page pair relates to the format of presentation data, and the method of successively determining the presence of physical folds of a page pair within a document for printing relates to the control of such format of presentation data. Therefore, the operation of the format of presentation is analogous to both the normal printing of text objects without converting into a bitmap image as disclosed by Ahrens and to the data-oriented folding of a page pair. Also, the affirmative successive detection of text data overlapping non-transparent graphic objects (see *Fig. 4, step 430 wherein a successive check is done for all non-transparent graphic objects to determine if text overlaps those graphic objects [paragraph 0027 – 0034]*) is analogous to the affirmative successive detection of an impossible physical fold. An operation of formatting the presentation data, i.e. normal printing of text objects without converting into a bitmap image, is implemented when possible (see *Fig. 4, steps 431 and 432 wherein non-overlapping text data is processed for printing as non-bitmap data [paragraphs 0029 – 0030, paragraph 0039, lines 14 – 15 and paragraph 0044, lines 4 – 6]*). The data is entered into list 237 when an operation of the format of presentation data, i.e. normal printing of text objects without converting into a bitmap image, cannot be implemented (see *Fig. 4, steps 431, 432 and 440 [paragraphs 0029 – 0030, 0040]*).

Rourke, Stahl GmbH, Yamada, Iwasaki and Ahrens are combinable because they are both from the same field of endeavor, being detail of image placement wherein the format of the presentation data is controlled. At the time of the invention, it would have been obvious to one of ordinary skill in the art to include successively checking if a physical fold is possible and implementing the physical fold if possible along with a printing system wherein the format of the presentation data is controlled. The suggestion/motivation for doing so would have been to improve the convenience of paginating printed material which automates the assignment of fold lines of printed material, as suggested by Iwasaki (*paragraphs 0004, 0005, 0009 – 0011*), and because Ahrens is from the same field of endeavor, being detail of image placement wherein the format of the presentation data is controlled.

Referring to **claim 18**, Ahrens discloses the method further comprising the step of processing presentation data present in the list (see *Fig. 2, list 237 and Fig. 4, steps 450 and 455*) with priority over other presentation data until a non-processed presentation data in the list is processed (*paragraph 0037, paragraph 0039, lines 14 – 15, paragraphs 0040 and 0043*). The rasterization of text data overlapping non-transparent graphic objects present in the list relates to the format of presentation data, and the method of rastering text data overlapping any non-transparent graphic objects in the list for printing as disclosed relates to the control of such format of presentation data. Furthermore, the non-foldable page pair present in the list relates to the format of presentation data, and the method of processing page pairs in the list for printing relates to the control of such format of presentation data. Therefore, the processing

presentation data present in the list is analogous to both the rasterization of text data overlapping non-transparent graphic objects present in the list as disclosed by Ahrens and the processing of the non-foldable page pair present in the list. Also, the rastering of text data overlapping any non-transparent graphic objects in the list (see *Fig. 4, step 450 [paragraph 0037]*) is analogous to the processing of processing the non-foldable page pairs in the list. Processing of presentation data present in the list, i.e. rasterization of text data overlapping non-transparent graphic object in the list 237, is performed before the final output image is printed as well as before the printing of non-bitmap data (see *Fig. 4 wherein the rasterization steps 450 and 455 are performed prior to step 460 wherein both bitmap and non-bitmap data is printed [paragraphs 0026, 0037, paragraph 0039, lines 14 – 15, paragraph 0043 and paragraph 0044, lines 4 – 6 wherein non-overlapping text data is processed for printing as non-bitmap data]*); thus, processing of presentation data present in the list, i.e. processing of page pairs present in the list, is performed with priority over other presentation data, i.e. other page pairs. Regarding “until a non-foldable page pair in the list is processed”, only non-foldable page pairs exist in the list according to claim 17, and Ahrens discloses processing of presentation data present in the list, i.e. rasterization of text data overlapping non-transparent graphic object in list 237, which is analogous to processing page pairs present in the list which only contains non-foldable page pairs.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myles D. Robinson whose telephone number is (571) 272-5944. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MDR

10/18/06



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